

What is claimed is:

Sub a!

1. An image display apparatus comprising:
input means for inputting two images of the same
5 subject obtained at different times;
display means for displaying the two inputted
images in a manner enabling an observer to fuse the two
inputted images together for stereoscopic viewing; and
display control means for controlling said display
10 means to display the two inputted images such that the
two inputted images are projected separately into left
and right eyes of the observer.

2. An image display apparatus as claimed in
claim 1, wherein said display means has a display
15 screen, the image display apparatus comprising position
designation means for designating a position on the
display screen of said display means in accordance with
operational input from the observer, and wherein said
display control means is responsive to a position being
20 designated by said position designation means, for
controlling said display means to display a mark in the
designated position on the display screen of said
display means in a manner being superposed on each of
the two images.

25 3. An image display apparatus as claimed in
claim 1, wherein each of the two images is an image
produced from a radiation intensity distribution.

09923199-080601

4. An image display apparatus as claimed in claim 3, wherein the two images are a past image and a current image taken of the same human subject.

5. An image display apparatus as claimed in claim 4, comprising spatial frequency accentuation means for carrying out spatial frequency accentuation processing on the images, and wherein said display control means controls said display means to display the images subjected to the spatial frequency accentuation processing.

6. An image display apparatus as claimed in claim 5, comprising spatial frequency intensity setting means for setting a spatial frequency intensity of said spatial frequency accentuation processing in accordance with operational input from the observer, and wherein said spatial frequency accentuation means carries out the spatial frequency accentuation processing on the images at the set spatial frequency intensity.

7. An image display apparatus as claimed in claim 5, wherein said display means has a color display function, and said display control means controls said display means to display the two images while changing colors of the two images independently.

8. An image display apparatus as claimed in claim 5, wherein said display control means controls said display means to display the two images while making one of the two images flash.

09923199-080601
T09080-66TE2660

9. An image display apparatus as claimed in claim 8, wherein a flashing interval at which the one of the two images is made to flash is variable.

10. An image display apparatus as claimed in claim 5, wherein said display means has a display screen, and wherein said display control means controls said display means to carry out rotating, magnifying and shifting at least one of the two images on the display screen of said display means.

10 11. An image display apparatus as claimed in claim 1, comprising at least two single image display means for displaying each of the two images singly, and wherein said display control means controls said single image display means to display each of the two images
15 singly.

12. An image display apparatus as claimed in claim 11, wherein each of said single image display means has a display screen, the image display apparatus comprising position designation means for designating a position on the display screen of said display means in
20 accordance with operational input from the observer, and wherein said display control means is responsive to a position being designated by said position designation means, for controlling said display means
25 to display a mark in the designated position on the display screen of said display means in a manner being superposed on each of the two images, and wherein, when

00923199-080601
109080-66122660

the mark is displayed in the position designated by said position designation means on the display screen of said display means, said display control means controls said single image display means to also
5 display the mark in a position corresponding to the designated position on the display screen of each of said at least two single image display means.

13. An image display apparatus as claimed in claim 12, comprising storage means for separately
10 storing each of the two images along with position information indicating the corresponding position of the mark.

14. An image display method of displaying two images of the same subject obtained at different times
15 on display means in a manner such that an observer can fuse the two images together for stereoscopic viewing, the method comprising the steps of:

inputting the two images; and

controlling said display means to display the two
20 inputted images such that the two inputted images are projected separately into left and right eyes of the observer, whereby the observer can fuse the images together.

15. An image display method as claimed in claim
25 14, comprising the steps of designating a position on a display screen of said display means in accordance with operational input from the observer, and controlling,

09923199.080601

in response to the position being designated by said position designation step, said display means to display a mark in the designated position on the display screen of said display means in a manner being
5 superposed on each of the two images.

16. An image display method as claimed in claim 14, wherein each of the two images is an image produced from a radiation intensity distribution.

17. An image display method as claimed in claim
10 16, wherein the two images are a past chest X-ray image and a current chest X-ray image taken of the same human subject.

18. An image display method as claimed in claim
15 17, comprising a step of carrying out spatial frequency accentuation processing on the chest X-ray images, and wherein said display means is controlled to display the chest X-ray images subjected to said spatial frequency accentuation processing.

19. An image display method as claimed in claim
20 18, comprising a step of setting a spatial frequency intensity of said spatial frequency accentuation processing in accordance with operational input from the observer, and wherein said spatial frequency accentuation processing is carried out on the chest X-
25 ray images at the set spatial frequency intensity.

20. An image display method as claimed in claim 14, wherein said display means has a color display

09923199-080601

function, and said display means is controlled to display the two images on said display means while changing colors of the two images independently.

21. An image display method as claimed in claim 5 14, wherein said display means is controlled to display the two images while making one of the two images flash.

22. An image display method as claimed in claim 21, wherein a flashing interval at which the one of the two images is made to flash is variable.

10 23. An image display method as claimed in claim 14, wherein said display means is controlled to carry out rotating, magnifying and shifting at least one of the two images on the display screen of said display means.

15 24. An image display method as claimed in claim 14, wherein at least two single image display means for displaying each of the two images singly are provided, and the image display method further comprises a step of controlling each of said single image display means 20 to display a corresponding one of the two images singly.

25 25. An image display method as claimed in claim 15, wherein at least two single image display means for displaying each of the two images singly are provided, and the image display method comprises steps of displaying each of the two images singly on a corresponding one of said single image display means, and also displaying the mark in a position

09923199-080601

corresponding to the designated position on a display screen of each of said single image display means, when the mark is displayed in the designated position on the display screen of said display means.

5 26. An image display method as claimed in claim 15, further comprising a step of separately storing each of the two images along with position information indicating the corresponding position of the mark.

10 27. A storage medium storing, so as to be readable by an information processing apparatus, a program for constructing an image display system for displaying two images of the same subject obtained at different times on display means in a manner such that an observer can fuse the two images together for
15 stereoscopic viewing, the program comprising:

 an input module for inputting the two images; and
 a display control module for controlling said display means to display the two inputted images such that the two inputted images are projected separately
20 into left and right eyes of the observer, whereby the observer can fuse the images together.

 28. A storage medium as claimed in claim 27, wherein said program comprises a position designation module for designating a position on a display screen
25 of said display means in accordance with operational input from the observer, and wherein, in response to the position being designated by said position

09923199.080601
T09080.66T22660

designated position on the display screen of said
display means in a manner being superposed on each of
5 the two images.

29. A storage medium as claimed in claim 28,
wherein each of the two images is an image produced
from a radiation intensity distribution.

30. A storage medium as claimed in claim 28,
10 wherein the two images are a past chest X-ray image and
a current chest X-ray image taken of the same human
subject.

31. A storage medium as claimed in claim 30,
wherein said program comprises a spatial frequency
15 accentuation module for carrying out spatial frequency
accentuation processing on the chest X-ray images, and
said display control module controls said display means
to display the chest X-ray images subjected to said
spatial frequency accentuation processing.

20 32. A storage medium as claimed in claim 31,
wherein said program comprises a spatial frequency
intensity setting module for setting a spatial
frequency intensity of said spatial frequency
accentuation processing in accordance with operational
25 input from the observer, and wherein said spatial
frequency accentuation module carries out the spatial
frequency accentuation processing on the chest X-ray

09923199-080601

images at the set spatial frequency intensity.

33. A storage medium as claimed in claim 27,
wherein said display means has a color display function,
and said display control module includes program
5 instructions for controlling said display means to
display the two images while changing colors of the two
images independently.

34. A storage medium as claimed in claim 27,
wherein said display control module includes program
10 instructions for controlling said display means to
display the two images on said display means while
making one of the two images flash.

35. A storage medium as claimed in claim 27,
wherein said display control module includes program
15 instructions for controlling said display means to
carry out rotating, magnifying and shifting at least
one of the two images on the display screen of said
display means.

36. A storage medium as claimed in claim 27,
20 wherein said display means has a color display function,
and said display control module includes program
instructions for controlling said display means to
display the two images while changing colors of the two
images independently, program instructions for
25 controlling said display means to display the two
images while making one of the two images flash, and
program instructions for controlling said display means

09023199.080601
T09080*66T22660

to carry out rotating, magnifying and shifting at least one of the two images on the display screen of said display means.

37. A storage medium as claimed in claim 27,
5 wherein at least two single image display means for displaying each of the two images singly are provided, and said display control module carries out display processing for controlling each of said single image display means to display a corresponding one of the two
10 images singly.

38. A storage medium as claimed in claim 27,
wherein at least two single image display means for displaying each of the two images singly are provided, and said display control module carries out display
15 processing for controlling each of said single image display means to display a corresponding one of the two images singly, and, when the mark is displayed in the designated position on the display screen of said display means, also carries out processing for
20 controlling said single image display means to also display the mark in a position corresponding to the designated position on a display screen of each of said single image display means.

39. A storage medium as claimed in claim 27,
25 wherein said program comprises a storage module for separately storing each of the two images along with position information indicating the corresponding

09923199-080601

position of the mark.

40. An image display apparatus comprising:

storage means for storing a plurality of images of
the same subject along with information relating to a
5 correspondence relationship between the images and
times when the images were taken;

searching means for searching for images having a
correspondence relationship therebetween from the
plurality of images stored in said storage means;

10 display means for displaying two of the images in
a manner enabling an observer to fuse the two images
together for stereoscopic viewing; and

display control means for reading any two of the
images from said storage means and controlling said
15 display means to display the read two images.

41. An image display apparatus as claimed in
claim 40, wherein said display control means includes
image processing means for carrying out different image
processing on each of the two images displayed on said
20 display means.

42. An image display apparatus as claimed in
claim 41, wherein said image processing means carries
out processing to make the two images different in
color.

25 43. An image display apparatus as claimed in
claim 41, wherein said image processing means carries
out processing to make one of the two images flash.

0923199-080604
109080-66122550

5

10

15

20

a second display step of displaying any two images selected from the search results so as to be viewable as a stereoscopic image.

46. An image display method as claimed in claim 45, wherein said second display step includes an image processing step of carrying out different image processing on each of the two images.

47. An image display method as claimed in claim
25 46, wherein said image processing step comprises
carrying out processing to make the two images
different in color.

48. An image display method as claimed in claim 46, wherein said image processing step comprises carrying out processing to make one of the two images flash.

5 49. An image display method as claimed in claim 46, wherein said first display step comprises displaying the search results as a list of reduced images, and said second display step comprises stereoscopically displaying two images selected from
10 the displayed list.

00923199-080601
T09080-66TE2660